

TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION

Effective December 1, 2011

GDR-81

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **July 2013**.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

Model 2216, 2217, 2283, 2284, 2285, 2286, 4216, 4217, 4283, 4284, 4285, 4286, 5216, 5217, 5283, 5284, 5285, 5286, 5916, 5917, 5983, 5984, 5985, and 5986 Residential, Impact Resistant Garage Doors manufactured by

C.H.I. Overhead Doors
1485 Sunrise Drive
Arthur, IL 61911
(800) 677-2650

will be acceptable for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this product evaluation.

PRODUCT DESCRIPTION

Model 2216, 2217, 2283, 2284, 2285, 2286, 4216, 4217, 4283, 4284, 4285, 4286, 5216, 5217, 5283, 5284, 5285, 5286, 5916, 5917, 5983, 5984, 5985, and 5986 doors are Residential sectional overhead doors constructed from galvanized steel with a baked on polyester finish. The 2283, 2284, 4283, 4284, 5283, 5284, 5983, and 5984 model doors are constructed from 27 gauge steel and insulated with expanded polystyrene insulation. The 2285, 2286, 4285, 4286, 5285, 5286, 5985, and 5986 model doors are constructed from 26 gauge steel with 27 gauge steel back panels and insulated with expanded polystyrene insulation. The 2216, 2217, 4216, 4217, 5216, 5217, 5916, and 5917 model doors are constructed from 26 gauge steel with 27 gauge steel back panels and insulated with poured in urethane insulation. The doors use a combination of 3" U-bars for horizontal reinforcement. Drawing number, design pressures, dimensions, and glazing dimensions are shown in Table 1.

Product Identification: A label will be affixed to the sectional overhead door. The label shall include the manufacturer's name, product name, and the allowable design pressure rating. Glazing is available on certain doors, as shown in Table 1. The installer will verify that the label is clearly marked indicating which door assembly is being installed, in addition to verifying that the design pressure rating is clearly marked.

LIMITATIONS

The maximum height of each door section shall not exceed 21 inches.

The doors shall have a maximum width of 20 feet. Refer to Table 1 for the maximum sectional overhead door dimensions.

The doors shall have a maximum height of 20 feet. Refer to the tables in this evaluation report for allowable door heights for specific doors.

The doors are reinforced with either 17 gauge or 19 gauge steel struts. The placement and installation of the struts are shown on the design drawings.

Design drawings: Specified in Table 1.

Allowable dimensions: Specified in Table 1.

Design pressures: Specified in Table 1.

Glazing (Optional): The glazing option for the doors in this product evaluation is $\frac{1}{4}$ " thick Lexan lites measuring a maximum of $16\frac{3}{4}$ " x $10\frac{1}{4}$ ".

Impact protection: The door assemblies shown in Table 1 satisfy the Texas Department of Insurance's criteria for protection from windborne debris and do not need to be protected with an impact protective system.

INSTALLATION INSTRUCTIONS

Design Drawings: The doors shall be installed as specified on the design drawings. The design drawings shall be provided with the door. Each page of the design drawings dated October 14, 2011, and shall be signed, sealed, and dated October 14, 2011 by John Scates, P.E. The following information, as a minimum, shall be provided on the design drawings:

- Drawing Number
- Design Pressures Rating
- Maximum Width and Maximum Height
- Maximum Section Height

Attachment of Doors to Wall Framing: In addition to providing the design drawings, the following documents shall be provided with the door: Jamb Attachment Detail, Drawing Number BJA-101-02, BJA-102-01, BJA-103-01, BJA-104-02, and BJA-105-01, signed and sealed on September 28, 2011 by John Scates, P.E. Wood jambs shall be Southern Pine, Spruce-Pine-Fir, or equivalent.

Note: The manufacturer's installation instructions and the appropriate design drawings, signed, sealed, and dated by John Scates, PE, shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.

Table 1 –Sectional Doors

Maximum Door Width	Maximum Section Height	Horizontal Reinforcement	Design Pressures (psf)	Hinge Columns	Glazing Option	Drawing Number
10'-1"	21"	(6)17 ga. x 3" 50ksi u-bars	+30.6/-34.1	3	Yes	TZ6i-16-02504
11'-11"		(6)17 ga. x 3" 50ksi u-bars				
12'-0"		(6)17 ga. x 3" 50ksi u-bars				
13'-11"		(6)17 ga. x 3" 50ksi u-bars				
14'-0"		(6)17 ga. x 3" 50ksi u-bars				
15'-11"		(6)17 ga. x 3" 50ksi u-bars				
16'-0"		(6)17 ga. x 3" 50ksi u-bars				
16'-1"	21"	(7)17 ga. x 3" 50ksi u-bars	+30.3/-33.7	3	Yes	TZ6i-18-02504
18'-0"		(7)17 ga. x 3" 50ksi u-bars				

Table 1 –Sectional Doors (Cont.)

Maximum Door Width	Maximum Section Height	Horizontal Reinforcement	Design Pressures (psf)	Hinge Columns	Glazing Option	Drawing Number
6'-0"	21"	(4)17 ga. x 3" 50ksi u-bars	+49.9/ -56.7	2	Yes	TZ7i-10-02504
7'-11"		(4)17 ga. x 3" 50ksi u-bars	+49.9/ -56.7			
8'-0"		(4)17 ga. x 3" 50ksi u-bars	+49.9/ -56.7			
9'-11"		(4)17 ga. x 3" 50ksi u-bars	+45.1/ -51.9			
10'-0"		(4)17 ga. x 3" 50ksi u-bars	+44.7/ -51.5			
10'-1"	21"	(10) 17 ga. 3" 50ksi u-bars	+43.0/ -48.3	3	Yes	TZ7i-19-02504
11'-11"		(10) 17 ga. 3" 50ksi u-bars				
12'-0"		(10) 17 ga. 3" 50ksi u-bars				
13'-11"		(10) 17 ga. 3" 50ksi u-bars				
14'-0"		(10) 17 ga. 3" 50ksi u-bars				

Table 1 –Sectional Doors (Cont.)

Maximum Door Width	Maximum Section Height	Horizontal Reinforcement	Design Pressures (psf)	Hinge Columns	Glazing Option	Drawing Number
15'-11"	21"	(10) 17 ga. 3" 50ksi u-bars	+43.0/-48.3	3	Yes	TZ7i-19-02504
16'-0"		(10) 17 ga. 3" 50ksi u-bars	+43.0/-48.3			
18'-0"		(10) 17 ga. 3" 50ksi u-bars	+39.5/-44.4			
18'-1"		(10) 17 ga. 3" 50ksi u-bars	+39.1/-44.0			
19'-11"		(10) 17 ga. 3" 50ksi u-bars	+32.3/-36.3			
20'-0"		(10) 17 ga. 3" 50ksi u-bars	+32.0/-36.0			
19'-1"	21"	(10) 17 ga. 3" 50ksi u-bars	+37.5/-41.7	3	Yes	TZ7i-20-02504
19'-8"		(10) 17 ga. 3" 50ksi u-bars	+35.3/-39.3			
19'-11"		(10) 17 ga. 3" 50ksi u-bars	+34.4/-38.3			
20'-0"		(10) 17 ga. 3" 50ksi u-bars	+34.1/-38.0			